Application No. 10/714,894 Reply to Office Action of December 18, 2006

<u>AMENDMENTS TO THE CLAIMS</u>

1. (Currently Amended) A product having a surface provided with a position coding

pattern coding positions on the surface so that itthe product is suitable for electronic

recording of hand writinghandwriting, said position coding pattern comprising a plurality

of marks, each of which represents one of at least two different values, the position

coding pattern also comprises a plurality of nominal positions, each of said plurality of

marks being associated with one of said plurality of nominal positions and the value of

each mark being coded by each mark's location relative to its the nominal position of the

mark.

2-22. (Canceled)

23. (Previously Presented) The product as claimed in claim 1, wherein each position

is coded by a two-dimensional array of marks.

24. (Previously Presented) The product as claimed in claim 23, wherein at least

some of the marks that code a first position also are used for coding a second position.

25. (Previously Presented) The product as claimed in claim 1, wherein all marks are

of substantially the same size.

3

MKM/PLC/vd

Docket No.: 3782-0277P

Application No. 10/714,894

Reply to Office Action of December 18, 2006

26. (Previously Presented) The product as claimed in claim 1, wherein the marks

are circular.

27. (Previously Presented) The product as claimed in claim 1, wherein the marks

are monochrome.

28. (Previously Presented) The product as claimed in claim 1, wherein a distance

between a mark and a mark's associate nominal position is less than a distance

between any two adjacent nominal positions.

29. (Currently Amended) The product as claimed in claim 1, wherein a diameter of

the marks is less than a distance between the marks and their-respective associate

nominal position positions of the mark.

30. (Previously Presented) The product as claimed in claim 1, the position-coding

pattern further comprising a plurality of first raster lines which are parallel to each other

and a plurality of second raster lines which are parallel to each other, said second raster

lines intersecting the first raster lines at intersection points, which constitute said

nominal positions.

MKM/PLC/vd

Docket No.: 3782-0277P

4

Docket No.: 3782-0277P Reply to Office Action of December 18, 2006

31. (Currently Amended) The product of claim 30, wherein the first and second

raster lines are virtual but may be and are determined from the marks of the position

coding pattern.

32. (Previously Presented) The product as claimed in claim 30, wherein the distance

between the raster lines is approximately 250 µm to 300 µm.

33. (Currently Amended) The product as claimed in claim 1, wherein each mark is

displaced in one of at least four different directions from its-the nominal position of the

mark.

34. (Currently Amended) A method of electronically recording handwriting,

comprising:

capturing a sequence of images of a position-coding pattern on a surface while

handwriting is created on the surface, each image including a subset of the position-

coding pattern and each subset including an array of marks coding a position on the

surface.

determining a plurality of nominal positions in each of said images,

determining locations of the marks in relation to the nominal positions in each of

5

said images,

MKM/PLC/vd

ecember 16, 2006

Docket No.: 3782-0277P

determining a position coded by the array of marks in each image based on the

locations of at least some of the marks in relation to their-respective nominal positions of

the marks.

35. (Previously Presented) A method as claimed in claim 34, wherein determining

locations of the marks comprises searching for the marks at a predetermined distance

from the nominal positions.

36. (Previously Presented) A method as claimed in claim 34, wherein determining a

plurality of nominal positions comprises localizing the marks and identifying a raster by

using the localized marks.

37. (Currently Amended) The method as claimed in claim 34, wherein determining a

position comprises determining a value coded by each mark in the array based on the

location of the mark in relation to its the nominal position of the mark and calculating a

position from the values coded by the marks in the array.

38. (Currently Amended) The method as claimed in claim 37, wherein determining a

value coded by each mark comprises determining in which of a plurality of

predetermined directions a mark is displaced from its the nominal position of the mark.

6 MKM/PLC/vd

Docket No.: 3782-0277P

39. (Currently Amended) A device for electronically recording handwriting,

comprising:

a sensor for capturing a sequence of images of a position-coding pattern on a

surface while the sensor is moved over the surface, each image including a subset of

the position-coding pattern including an array of marks, and

a processor, which is configured to determine a plurality of nominal positions in

each of said images, to determine locations of the marks in relation to the nominal

positions in each of said images, and to determine a position coded by the array of

marks in each image based on the locations of at least some of the marks in relation to

their-respective nominal positions of the marks.

40. (Previously Presented) The device as claimed in claim 39, wherein the

processor is configured to search for the marks at a predetermined distance from the

nominal positions.

41. (Previously Presented) The device as claimed in claim 39, wherein the

processor is configured to localize the marks and identify a raster by using the localized

marks.

42. (Previously Presented) The device of claim 39, wherein the raster is a virtual

raster identifiable from the marks displaced from the raster.

43. (Currently Amended) The device as claimed in claim 41, wherein the processor is configured to determine a value coded by each mark in the array based on the location of the mark in relation to its the nominal position of the mark and calculate a position from the values coded by the marks in the array.

44. (Currently Amended) The device as claimed in claim 39, wherein the processor is configured to determine in which of a plurality of predetermined directions a mark is displaced from its-the nominal position of the mark.

45. (New) The product as claimed in claim 1, wherein the position-coding pattern is so arranged that the position of a partial surface on a total writing surface is determined unambiguously by the marks on this partial surface.

- 46. (New) The product as claimed in claim 1, wherein the position-coding pattern is based on a cyclic number series which has the property that no subsequence of a first predetermined length appears more than once in the number series.
- 47. (New) The method as claimed in claim 37, wherein determining a position comprises separating each of the values into a least two digits to form a first and second set of digits and calculating a first and second coordinate based on said first and second set of digits, respectively.

8 MKM/PLC/vd

Docket No.: 3782-0277P

Application No. 10/714,894

Reply to Office Action of December 18, 2006

Docket No.: 3782-0277P

48. (New) The method as claimed in claim 37, wherein calculating a position comprises

determining places in which subsequences having a first predetermined length and

being formed from said values coded by the marks in the array appear in a cyclic

number series which has the property that no subsequence of the first predetermined

length appears more than once in the number series.

49. (New) The apparatus as claimed in claim 43, wherein the processor is adapted to

separate each of the values of the predetermined number of marks into at least two

digits to form a first and second set of digits and to calculate a first and second

coordinate based on said first and second set of digits, respectively.

50. (New) The apparatus as claimed in claim 43, wherein the processor is adapted to

determine a position by determining places in which subsequences having a first

predetermined length and being formed from said values coded by the marks in the

array appear in a cyclic number series which has the property that no subsequence of

9

the first predetermined length appears more than once in the number series.

MKM/PLC/vd